MARFORPAC AVIONICS

September 2008

Major Timothy T. Rybinski

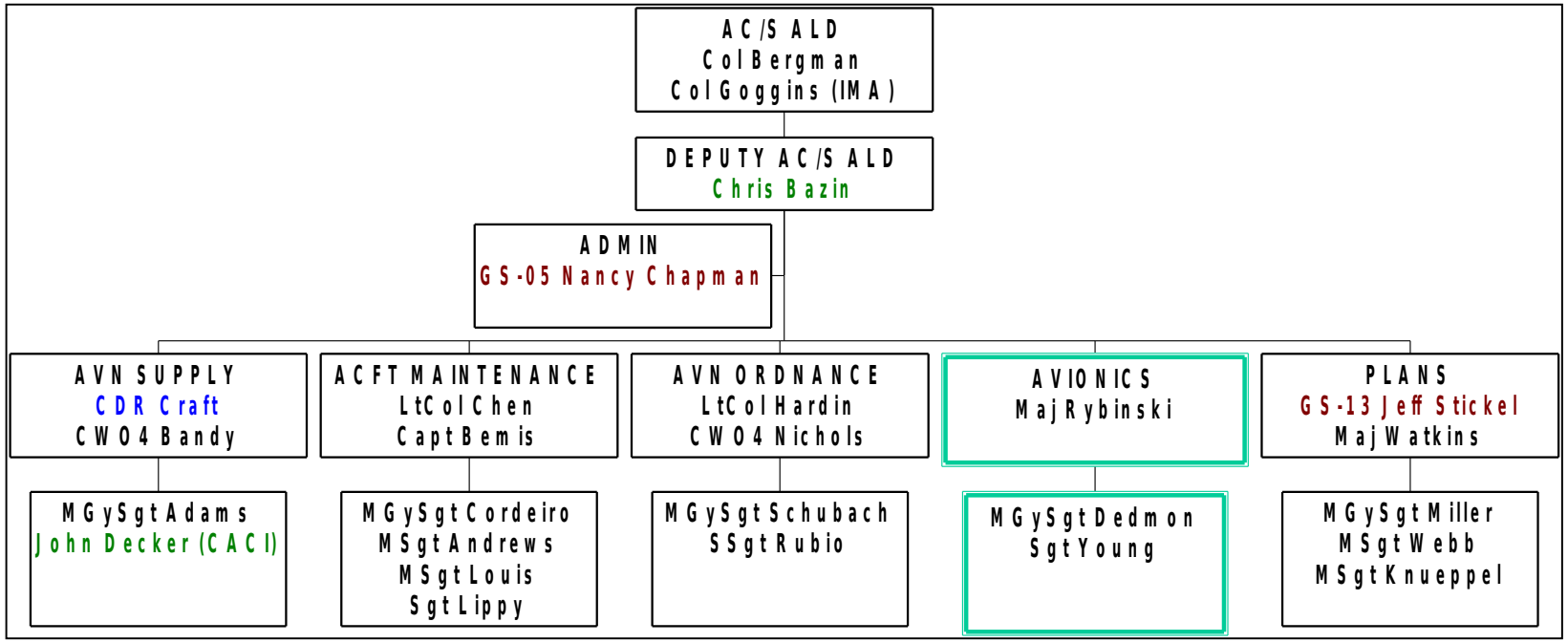
MARFORPAC ALD-E Overview

- Mission
- Organization
- Marine Aviation Initiatives
- Current/Future Issues and Actions

ALD Mission

- **Identify requirements and provide logistical support**
  - To optimize aircraft readiness
  - For aviation support equipment
  - For mobile maintenance facilities
  - For aviation ordnance including sourcing, delivery and sustainment
- **Advise CMFP on aviation logistics matters**
  - Readiness
  - Policies
  - Deliberate planning
  - Organization, functions and operations
- **ALD's TYCOM Role**
  - Under CNO, responsible for Combat and Non-Combat (NCEA) aviation ordnance management, distribution and accountability
  - Under NAVAIR, responsible for mobile maintenance facilities and ancillary equipment management, distribution and accountability

ALD Organization Chart



Marine & Navy Aviation Initiatives

- **Naval Aviation Current Readiness**
  - Marine Aviation Executive Readiness Board (MAERB)
  - AIRSpeed
- **MALSP II**
  - MEU RESP
- **New Aircraft Transition Task Force (TTF)**

Avionics Ongoing Events

NO MORE MC BALL DUTIES!!!!! WOO-HOO!!!

- Coordinate avionics issues with ASL, CNAF, CFWP, MEFs, and MAWs.
- Provide avionics logistics deliberate planning guidance
  (5077, 5026/27, 5029 OPLANs/CONPLANS)
- Monitor aircraft readiness and availability of avionics assets.
- Monitor avionics deployability/support capability of T-AVB/MPF(F)
- Coordinate distribution of ASE/ ECM equipment and night vision devices.
- Serve as TYCOM under NAVAIR for mobile facilities.
- Serve on T/M/S Transition Teams for West Coast Stand-up

Avionics Discussion

ASE-

Upcoming modification effort. JAWS team continues MAWTS-1 training assistance. MAWTS-1 Avionics ASE issues (repair of WRA's/ SN# tracking). CNAF Inst. (CNAF I/W) IWSR impacts?

TBA Review-

New MF order established new TBA. Significant excess MF's identified from legacy ATE. Plan identified for reutilization. Discuss way forward. (Where's order!?)

FISP-

Common solution across Wings. Disposition of MF's. ASL container solution? (RENO OAG Chit 07)

MPF(F)- New ship selection make up for MPSRON squadrons. L-Decks going back to assault echelon. Discuss AVLOG TTF progress.

Avionics Discussion (Cont'd)

TAV-B-

Exercises tied to O-plans Pacific Provider 09 COA. Discuss upcoming TQG delivery/storage (ALBANY NOW?)

MCC's-

Consolidate into 3 EX-labs COA selected by the ESC. Working groups need to begin data collection for recommendations to ESC with personnel/equipment. (RENO OAG ESC action)

LEGACY ATE/RT-CASS-

With RT-CASS delivery schedule, identify legacy ATE disposition/sundown.

COMPASS CALIBRATION SITE-

CNAP/CNAL orders still referenced in directives. Need to address with CNAF on lack of CNAF Instruction.

LASER Program-

Need to attend Ordnance Meeting

Avionics Discussion (Cont'd)

Avionics Obsolescence-

Quickly becoming one of the topic of discussion at the GO level. (F-18 – Maj Silard can speak to.. V-22 – Maj Clemons)

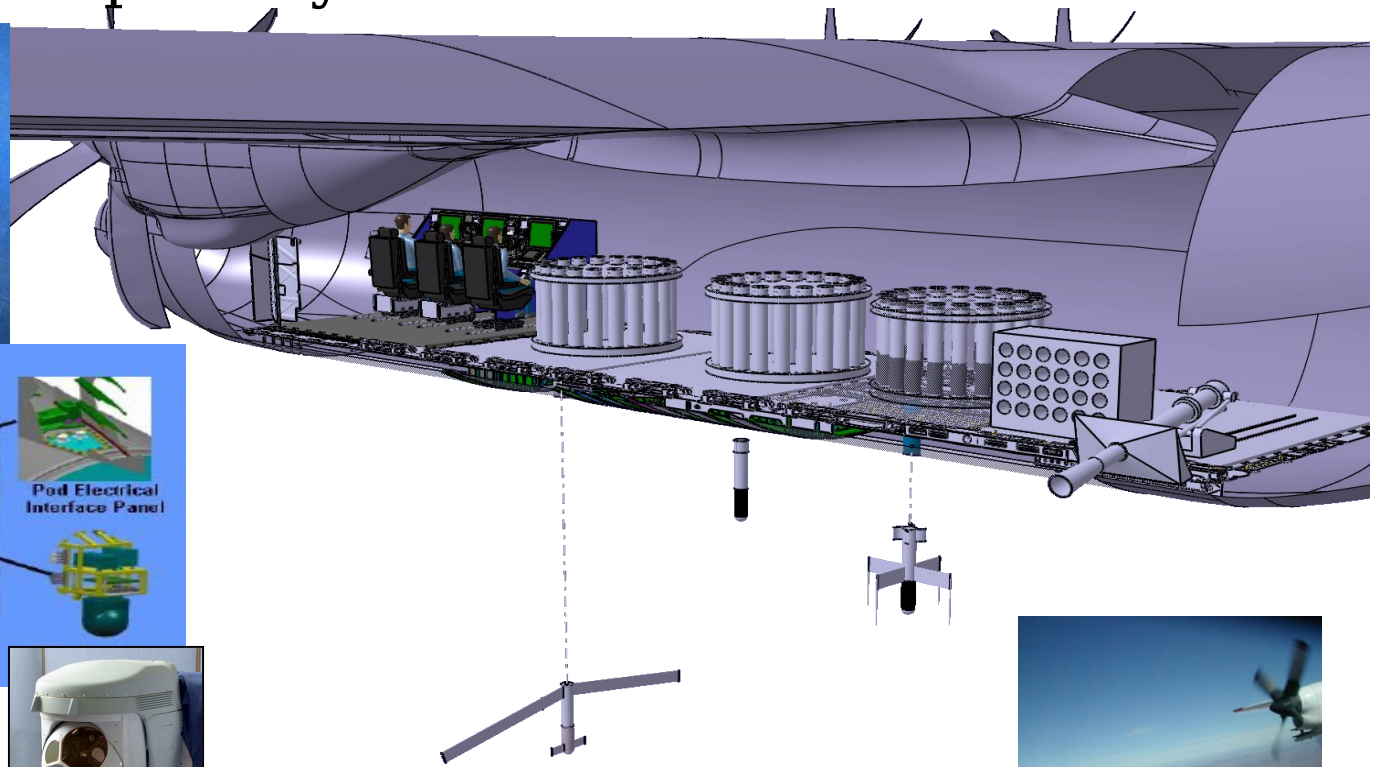
Avionics

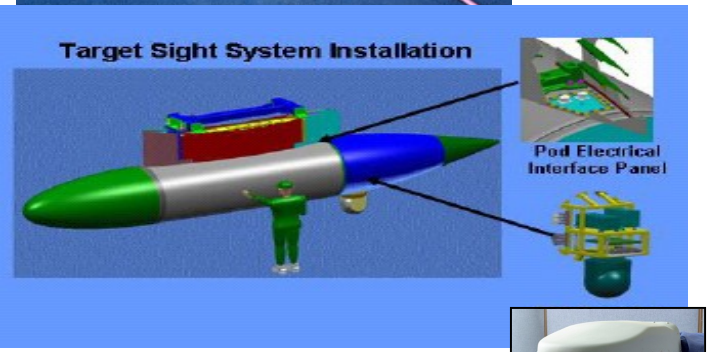
- **Current Projec**
  - New TAVB.

Avionics

Current Projects (Cont'd):

MROC Decision Memorandum 60-2008 – Approved "Armed C-130J Capability".



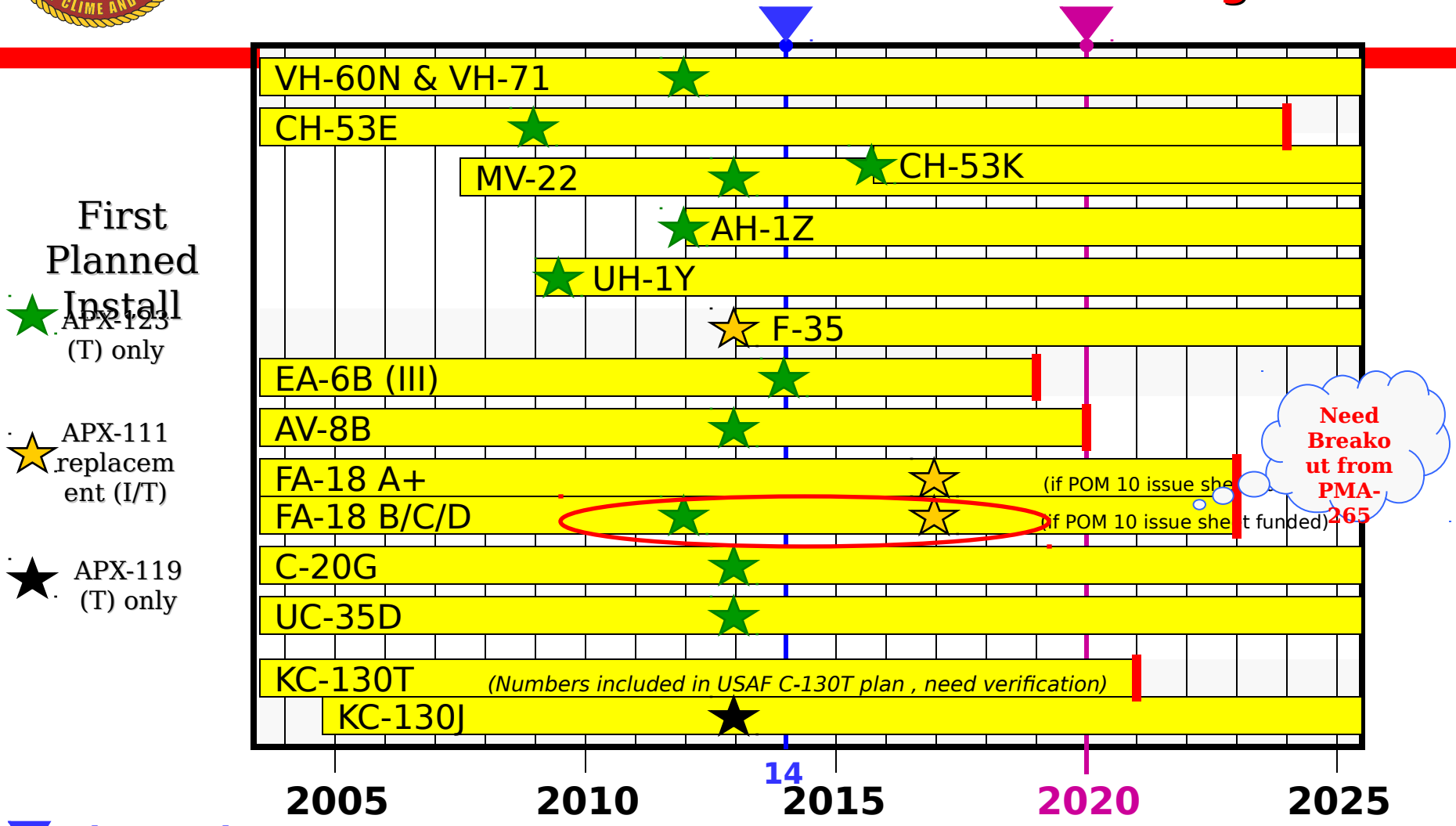


*TSS FROM H-1Z

Hellfire

Avionics

Mode 5 USMC Platforms Transitioning



Avionics

MCO
1200.17
23 May 08

1135. **OCCUPATIONAL FIELD 63, ORGANIZATIONAL AVIONICS MAINTENANCE**

1. MOS 6302, Avionics Officer (II/III) (LtCol to Capt) PMOS

a. Summary. Avionics officers organize and direct the avionics effort for ***organizations.***

d. Duties

(5) Serves as staff advisor to the ***commanding officer/staff officers*** in the chain of command on avionics matters.

If you don't know about something, get smart on it....
You are the technical resident expert.

Questions?

SURVIVAL
When you are in deep trouble, say nothing, and try to look like you know what you're doing.
Shown at
chersweb.com

Back up slides

Legacy Offload: (From ATC DeBroeck)

- **MALS 11**
  - IMUTS JAN 09
- **MALS 12**
  - CATIIID JUN-AUG 09
  - TTS DEC 08
  - DTB (OJ-510)JUN-AUG 09
  - RADCOM JUN-AUG 09
  - IMUTS JUN-AUG 09
- **MALS 13**
  - IMUTS JUN 09
- **MALS 14**
  - CATIIID OCT 08
  - TTS OCT 08
  - DTB (OJ-510)AUG 09
  - RADCOM OCT 08
  - IMUTS MAR 09
- **MALS 31**
  - IMUTS JUN 09
- **MALS 41**
  - IMUTS NOV 09

Armed C-130J Backups

Armed C-130J Schedule

Mid Dec '08

Mid Feb '09

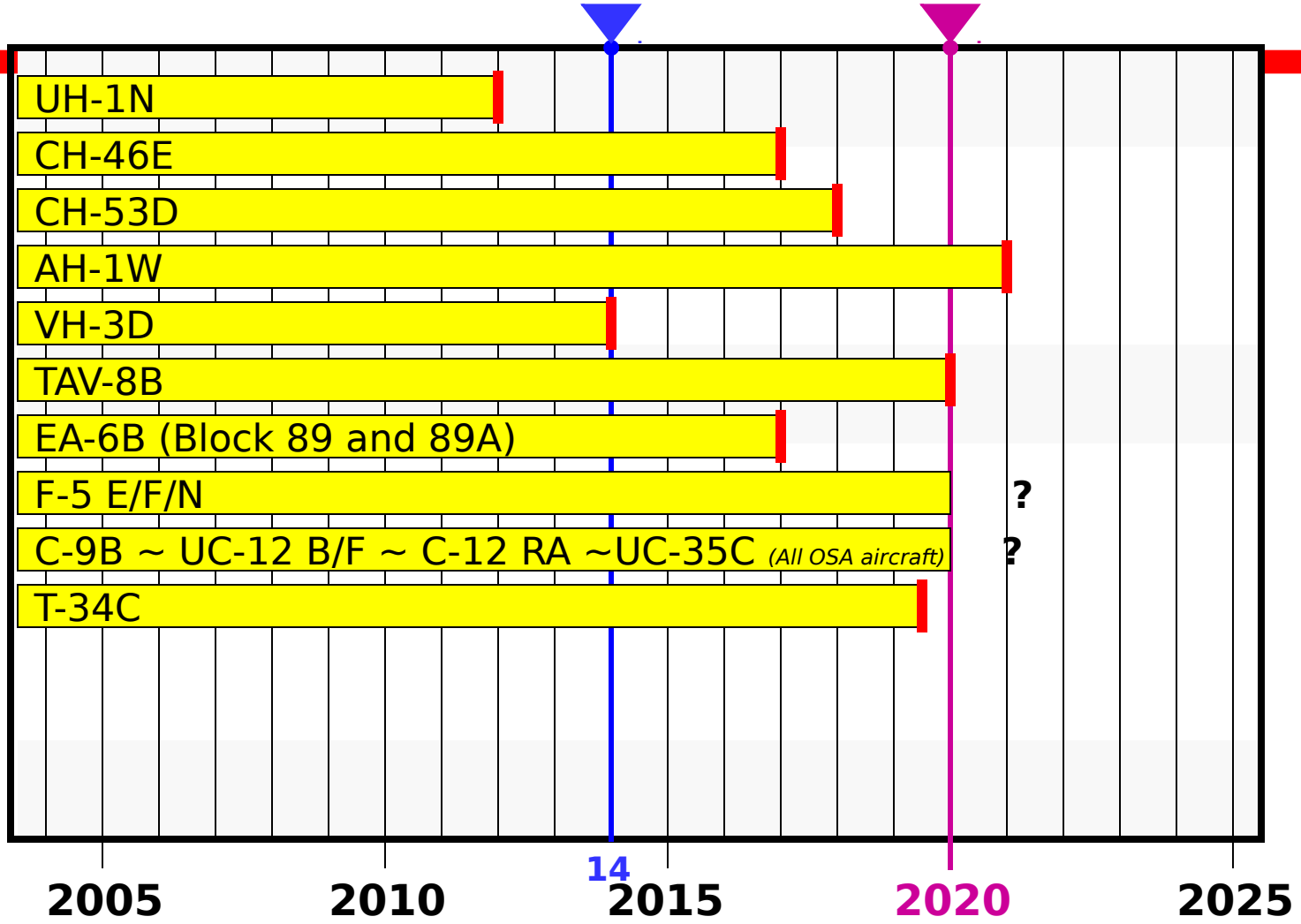
Develop | Test | Deploy

Train

- Training devices, instructors, pubs exist at Skunk Works
- AFSOC has extensive experience in gunship

Develop | Test

Platforms Remaining Mode IV



▼ Joint Mode 5 IOC

▼ Joint Mode 5 FOC

MODE 5 IMPROVEMENTS TO MODE 4

Enhanced Security

Mode 4

NSA Action Memo
- Phasing out of KI-Family of equipment protected (dtd 29 Jul 94)

***40-year old* algorithm**

***24-Hour* COMSEC Validity Interval**

Reply *Unprotected* Reply

Mode 5

Includes data from all current Mark XII Modes within

reply (Modes 1,2,3,C)

New NSA - developed algorithm

Short COMSEC Validity Interval

Interrogation and

Encryption

Discriminate Between Closely-Spaced Platforms

Mode 4

- **Replies have same delay**
- **Results in Multi-Target Garble**

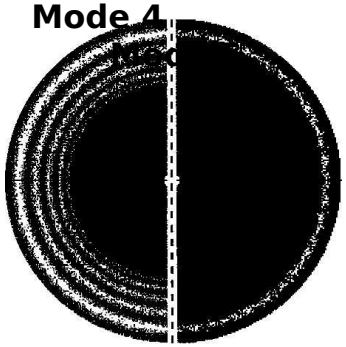
Mode 5

- **Incorporates Random Reply Delay**
- **Better discrimination between closely spaced targets**

LETHAL INTERROGATION

Mode 5 Improves ID Coverage

Mode 4



Increased Processing Gain

- Extends Effective Coverage
- Reduces Target Dropout
- Reduces ID Track Swaps
- Confirmed by Mode 5 Analysis and Flight Test

Compatible with Civil ATC

- Mode 5 designed to interfere less than Mode 4
  - Lower interrogation rate
  - Message design does not induce civil transponder “squitter” or “suppression”
- Demonstrates less interference to civil ATC transponders
- Close coordination with FAA has resulted in positive response
- Supports goal of unrestricted use for training and operational missions

Increased System Performance